

IN THE CLAIMS

1. (currently amended) A pixel compensating circuit for compensating defect pixels included in a video signal comprising:

a color information holding unit for holding plural kinds of color information of a defect pixel and pixels adjacent said defect pixel, said color information of said defect pixel including defective color information and non-defective color information;

a difference calculating unit for calculating differences between non-defective color information among ~~said color information~~ of said defect pixel and corresponding ~~said~~ color information of said pixels adjacent said defect pixel ~~corresponding to said non-defect color information;~~

a reference pixel determining unit for determining a reference pixel having color information that is the most similar to said non-defective color information; and

a compensating unit for calculating an average value of said differences between ~~for~~ said reference pixel and said defect pixel, and setting ~~for~~ compensating defective color information of said defect pixel to the value of the corresponding color information of said reference pixel minus ~~using~~ said average value.

2. (original) The pixel compensating circuit as cited in claim 1, wherein:

    said reference pixel determining unit determines said reference pixel so that the sum of the absolute values of said differences becomes minimum.

3. (currently amended) The pixel compensating circuit as cited in claim 1, wherein:

when there exists defect in the adjacent pixel, said adjacent pixel having defect or defective color information of the adjacent pixel having defect is excluded.

4. (original) The pixel compensating circuit as cited in claim 1, wherein:

said compensation is carried out per one pixel when said defect pixel are 2 or more in a row.

5. (original) The pixel compensating circuit as cited in claim 1, further comprising:

a weighting unit for applying a coefficient to said difference depending on a distance between said defect pixel and the focused adjacent pixel.

6. (previously presented) The pixel compensating circuit as cited in claim 1, wherein:

said video signal is one outputted from a solid state imaging device.

7. (currently amended) A pixel compensating method for compensating a defect pixel of a video signal, comprising the steps of:

holding plural kinds of color information of defect pixel and pixels adjacent said defect pixel, said color information of said defect pixel including defective color information and non-defective color information;

calculating differences between non-defective color information among said color information of said defect pixel and corresponding said color information of said pixels adjacent said defect pixel corresponding to said non-defect color information;

determining a reference pixel having color information that is the most similar to said non-defective color information;

calculating an average value of said differences between ~~for~~ said reference pixel and said defect pixel; and

setting ~~compensating~~ defective color information of said defect pixel to the value of the corresponding color information of said reference pixel minus ~~using~~ said average value.

8. (original) The pixel compensating method as cited in claim 7, wherein:

said reference pixel is determined so that the sum of absolute values of said differences becomes minimum.

9. (currently amended) The pixel compensating method as cited in claim 7, wherein:

when there exists defect in the adjacent pixel, said adjacent pixel having defect or ~~defective~~ color information of the adjacent pixel having defect is excluded.

10. (original) The pixel compensating method as cited in claim 7, wherein:

said compensation is carried out per one pixel when said defect pixel are 2 or more in a row.

11. (original) The pixel compensating method as cited in claim 7, wherein:

a coefficient is applied to said differences depending on a distance between said defect pixel and the focused adjacent pixel.

12. (previously presented) The pixel compensating method as cited in claim 7, wherein:

said video signal is one outputted from a solid state imaging device.

13. (currently amended) An image taking apparatus including a pixel compensating circuit for compensating defect pixels included in a video signal, wherein said pixel compensating circuit comprising:

a color information holding unit for holding plural kinds of color information of a defect pixel and pixels adjacent to said defect pixel, said color information of said defect pixel including defective color information and non-defective color information;

a difference calculating unit for calculating a difference between non-defective color information among said color information of said defect pixel and corresponding said color information of said pixels adjacent to said defect pixel corresponding to said non-defect color information;

a reference pixel determining unit for determining a reference pixel having color information that is the most similar to said non-defective color information; and

a compensating unit for calculating an average value of said differences between for said reference pixel and said defect pixel, and setting for compensating defective color information of said defect pixel to the value of the corresponding color information of said reference pixel minus using said average value.

14. (original) The image taking apparatus as cited in claim 13, wherein:

said reference pixel determining unit determines said reference pixel so that the sum of the absolute values of said difference becomes minimum.

15. (currently amended) The image taking apparatus as cited in claim 13, wherein:

when there exists defect in an adjacent pixel, said adjacent pixel having defect or defective color information of the adjacent pixel having defect is excluded.

16. (original) The image taking apparatus as cited in claim 13, wherein:

said compensation is carried out per one pixel when said defect pixel are 2 or more in a row.

17. (original) The image taking apparatus as cited in claim 13, further comprising:

a weighting unit for applying a coefficient to said difference depending on a distance between said defect pixel and the focused adjacent pixel.

18. (previously presented) The image taking apparatus as cited in claim 13, wherein:

said video signal is one outputted from a solid state imaging device.